

III. **REMARKS**

This Amendment is filed in response to the Office Action dated April 29, 2009, with a Petition for Three (3) Month Extension of Time and payment of the appropriate fees.

Claims 13-15, 18-21, 24-27, and 30-36 are pending.

By this Amendment, claims 13, 21, and 25 are amended. Support for the amendment can be found in the specification and claims as original filed. For example, support for the amendment to claims 13, 21, and 25 can be found in the specification at least on page 1, lines 6-10; page 25, line 28; and Table 5 on page 27. Applicants submit that no new matter has been added and respectfully request reconsideration and withdrawal of the pending rejection.

Translation of Foreign Priority Document

The Examiner notes that an English translation has not been provided for the foreign priority document, Italian Application No. RM99A00069. Applicants submit a verified English translation of the foreign priority application.

Title of the Invention

The Examiner states that the title of the invention is not descriptive and that the recitation of the term "use" is not appropriate for U.S. practice. As suggested by the Examiner, Applicants amend the title of the invention to "Method of Treating Intraocular Tissue Pathologies with Nerve Growth Factor."

Rejections under 35 U.S.C. § 102(b)

1. *Lambiase*

Claims 13-15, 18-21, 24-27, and 30-36 are rejected under 35 U.S.C. § 102(b) as being anticipated by Lambiase (WO 98/48002), as evidenced by Stedman's Medical Dictionary (Lippincott, Williams & Wilkins, 2000) and The World's Best Anatomical Charts (Anatomical Chart Company, Skokie, IL, 2000, Sagittal View of the Eye).

Presently amended claim 13 is directed to a “method for the treatment of a pathology affecting tissues of an eye selected from the group consisting of: ciliary bodies, crystalline lens, retina, optic nerve, vitreous body, and choroidea, comprising:

- (1) identifying a subject in need of treatment of the pathology,
- (2) topically applying a composition comprising from 10 to 500 µg/ml of nerve growth factor over an ocular surface of the subject, and contacting the tissues with the nerve growth factor to treat the pathology,

wherein the pathology is selected from the group consisting of: cataract, optic neuritis, glaucoma, maculopathy, retinitis pigmentosa, myopic retinopathy, macular foramen, uveitis, vitrectomy, ocular hypotonia, and phthysis” (emphasis added). Claims 14-20 depend from independent claim 13.

Presently amended claim 21 is directed to a “method for the treatment of a pathology affecting tissues of an eye selected from the group consisting of: sclera, ciliary bodies, crystalline lens, retina, vitreous body, and choroidea, comprising:

- (1) identifying a subject in need of treatment of the pathology, and
- (2) topically applying a composition comprising nerve growth factor over an ocular surface of the subject and contacting the tissues with the nerve growth factor to treat the pathology;

wherein the pathology is selected from the group consisting of: cataract, scleromalacia, perforating trauma of the sclera, optic neuritis, maculopathy, retinitis pigmentosa, myopic retinopathy, macular foramen, uveitis, vitrectomy, ocular hypotonia, and phthysis” (emphasis added). Claim 24 depends from independent claim 21.

Presently amended claim 25 is directed to a “method for the treatment of a pathology affecting tissues of an eye selected from the group consisting of: ciliary bodies, crystalline lens, retina, optic nerve, vitreous body, and choroidea, comprising:

- (1) identifying a subject in need of treatment of the pathology, and
- (2) topically applying a composition comprising from 200 to 500 µg/ml of nerve growth factor over an ocular surface of the subject and contacting the tissues with the nerve growth factor to treat the pathology;

wherein the pathology is selected from the group consisting of: cataract, optic neuritis, glaucoma, maculopathy, retinitis pigmentosa, myopic retinopathy, macular foramen, uveitis, vitrectomy, ocular hypotonia, and phthysis" (emphasis added). Claims 26, 27, and 30-36 depend from independent claim 25.

Applicants respectfully disagree with the Examiner's position that Lambiase anticipates the presently claimed invention. In contrast to the presently claimed invention, Applicants submit that Lambiase merely discloses the "use of nerve growth factor for the storage of corneas in culture, the *in vitro* production of corneal and conjunctival tissues and the treatment of corneal and conjunctival diseases" (Lambiase, page 1, lines 5-7) (emphasis added). Applicants submit that Lambiase merely discusses the treatment of conditions relating to the cornea and conjunctiva, which are not the pathologies listed in amended independent claims 13, 21, and 25. Further, Applicants submit that Lambiase does not teach or disclose the step of "identifying a subject in need of treatment of the [recited] pathology..." (claims 13, 21, and 25) (emphasis added).

The Examiner asserts that Applicants argue that corneal and conjunctival tissues are not internal issues of the eye. Applicants respectfully disagree with the Examiner's statement, as Applicants' argument is that the cornea and conjunctiva are not internal tissues that are recited in the claims (sclera, ciliary bodies, crystalline lens, retina, vitreous body, optic nerve, and choroidea). In order to clarify this point, Applicants have amended the claims to remove the term "internal" and simply recite the tissues of the eye. Applicants further note that the claims have been amended to clarify that nerve growth factor is topically applied and that the recited tissues are contacted with nerve growth factor.

Applicants respectfully disagree with the Examiner's position that Lambiase inherently discloses the presently claimed invention. Applicants submit that in the present application, the disclosure of the treatment of conditions involving the cornea and conjunctiva does not render the treatment of conditions involving the recited tissues of the eye inherent.

Applicants resubmit that this position is supported by the case law, and in particular, *Perricone v. Medicis Pharmaceutical Corp.*, 432 F.3d 1368 (Fed. Cir. 2005). Applicants submit that, according to *Perricone*, the issue is not whether nerve growth factor, if applied to eyes afflicted with the recited pathologies, would inherently treat those conditions. Rather, the issue is whether Lambiase discloses the use of nerve growth factor to treat the claimed conditions. In other words, Applicants submit that the issue is whether one of ordinary skill in the art, reviewing the cited references and seeking to treat a subject with the recited pathologies, would understand that the recited pathologies could in fact be treated with nerve growth factor, and that the treatment required topical administration of a preparation containing nerve growth factor on an ocular surface. Applicants submit that it is not relevant that the cited references teach or suggest treatment of wounds or pathologies involving the cornea, conjunctiva, or anterior chamber, because, based on the teachings of the cited references. However, one of ordinary skill in the art would not understand that a subject having the recited pathologies (which are not conditions involving the cornea, conjunctiva or anterior chamber), could be treated with nerve growth factor, and that the treatment required topical administration of a preparation containing nerve growth factor on an ocular surface. Applicants submit that the proximity and position of the sclera with respect to the cornea, conjunctiva, and anterior chamber is irrelevant, as these tissues are separate and distinct parts of the eye. In addition, Applicants note that the *Schering* case cited by the Examiner was distinguished in the *Perricone* case, so the holdings of *Schering* and *Perricone* are not inconsistent.

In addition, as noted above, the present claims recite the step of “identifying a subject in need of treatment of the [recited] pathology,” and the claims do not recite pathologies involving the cornea, conjunctiva, or anterior chamber. This recitation means that Lambiase could not inherently treat the recited pathologies unless such an identification was made, which it was not.

For at least the above reasons, Applicants submit that Lambiase does not teach each and every element of the presently claimed invention, inherently or otherwise. Therefore, Applicants respectfully request reconsideration and withdrawal of the

rejection of claims 13-15, 18-21, 24-27, and 30-36 under 35 U.S.C. § 102(b) over Lambiase.

2. *Finkenaar*

Claims 13-15, 18-19, 21, 24-27, and 30-36 were rejected under 35 U.S.C. § 102(b) over Finkenaar et al. (EP 0312208, hereinafter “Finkenaar”), as evidenced by Stedman’s Medical Dictionary (Lippincott, Williams & Wilkins, 2000) and The World’s Best Anatomical Charts (Anatomical Chart Company, Skokie, IL, 2000, Sagittal View of the Eye). Applicants traverse the rejection.

Independent claims 13, 21, and 25 have been discussed above. Claims 14, 15, and 18-20 depend from claim 13. Claim 24 depends from claim 21. Claims 26-27 and 30-36 depend from claim 25.

Applicants submit that Finkenaar merely discloses “aqueous gel formulations or viscous solutions for the controlled delivery of growth factors to a wound site” (Finkenaar, page 2, lines 36-37). In particular, Finkenaar discloses “gels for topical or incisional wound healing, gels for healing wounds in the anterior chamber of the eye and low viscosity, aqueous formulations for those applications requiring a more fluid formulation having a higher water content” (Finkenaar, page 2, lines 38-40). Finkenaar discloses, “Wounds that may be healed using the compositions of the present invention are those which result from any accidental or medical injury which causes epithelial damage such as ophthalmic wounds which result from corneal ulcers, radiokeratotomy, corneal transplants, epikeratophakia and other surgically induced wounds in the eye; and cutaneous wounds such as burn wounds, incisional wounds, donor sit wounds from skin transplants, and ulcers...” (Finkenaar, page 6, lines 4-7).

As asserted previously, Applicants submit that Finkenaar discloses procedures or conditions involving the cornea, and not the recited tissues of the eye. Further, Applicants submit that Finkenaar does not disclose the recited pathologies of the present claims, much less the step of “identifying a subject in need of treatment of the [recited] pathology” (claims 13, 21, and 25).

Applicants again respectfully disagree with the Examiner's assertion that the composition disclosed by Finkenaur, when applied to the eye, treats the same eye-related disorders as the present application. Similar to the above rejection over Lambiase, Applicants submit that the assertion that Finkenaur inherently anticipates the presently claimed invention is improper. Applicants submit that the Federal Circuit's decision in *Perricone v. Medicis Pharmaceutical Corp.* also applies to the current rejection. Applicants submit that the issue is whether Finkenaur discloses the use of nerve growth factor to treat the claimed conditions, and Applicants submit that Finkenaur does not. Therefore, Applicants respectfully submit that Finkenaur does not anticipate the presently claimed invention.

Further, as noted above, like Lambiase, Finkenaur does not disclose the step of "identifying a subject in need of treatment of the [recited] pathology" (claims 13, 21, and 25).

For at least the above reasons, Applicants submit that Finkenaur does not teach or suggest all of the elements of the presently claimed invention, inherently or otherwise. Therefore, Applicants respectfully request reconsideration and withdrawal of the rejection of claims 13-15, 18-19, 21, 24-28, and 30-36 were rejected over Finkenaur.

Rejection under 35 U.S.C. § 112, first paragraph

Claims 13, 21 and 25 are rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement. In particular, the Examiner asserts that the claims have been amended to include the pathology of retinitis pigmentosa and that retinitis pigmentosa is not disclosed in the specification.

Applicants submit that there is written description support for the pathology of retinitis pigmentosa. Applicants note that the specification recites the term "pigmentary retinopathy" on page 22, line 25, and Table 4 on page 24, which is synonymous with "retinitis pigmentosa." Applicants note that "retinitis pigmentosa" is a Latin term, and that "pigmentary retinopathy" is an English translation of the Latin term. Applicants note that in corresponding European Patent EP 1 161 256 (enclosed), the term "retinitis pigmentosa" is used (see paragraph [0053] and Table 4 on page 9).

Therefore, Applicants submit that there is sufficient written description support and respectfully request reconsideration and withdrawal of the rejection of claims 13, 21, and 25 under 35 U.S.C. § 112, first paragraph.

Nonstatutory Obviousness-type Double Patenting

Claims 13, 15, 18-21, 24-27, 30-31, 33, 35, and 36 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 8-11, and 13 of copending Application No. 12/064,172 (hereinafter "the '172 application").

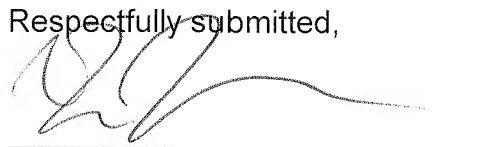
Because co-pending U.S. Patent Application No. 12/064,172 has not issued or been allowed as of the filing of this paper, filing a Terminal Disclaimer to obviate a provisional double-patenting rejection is premature. Withdrawal of the provisional double patenting rejection is respectfully requested.

IV. CONCLUSION

Applicants respectfully submit that this application is in condition for allowance and such action is earnestly solicited. If the Examiner believes that anything further is desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact Applicants' undersigned representative at the telephone number listed below to schedule a personal or telephone interview to discuss any remaining issues.

In the event this response is not timely filed, the Applicants hereby petition for an appropriate extension of time. The fee for this extension, along with any other additional fees which may be required with respect to this response, may be charged to Deposit Account No. 01-2300, referencing Attorney Docket No. 026073-00020.

Respectfully submitted,



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Enclosures: Verified Translation of Foreign Priority Application
Corresponding European Patent EP 1 161 256